REMARKS

This is in full and timely response the Office Action dated May 22, 2006. Reexamination in light of the following remarks is respectfully requested.

Claims 1-20 are currently pending in this application. *No new matter has been added.*

Prematureness

Applicant, seeking review of the *prematureness* of the final rejection within the Final Office Action, respectfully requests reconsideration of the finality of the Office action for the reasons set forth hereinbelow. See M.P.E.P. §706.07(c).

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made, then a ***new non-final Office Action*** is respectfully requested.

Rejection under 35 U.S.C. §112, second paragraph

Paragraph 2 of the Office Action indicates a rejection of claim 9 under 35 U.S.C. §112, second paragraph.

The Office Action contends that no antecedent basis is found for the terms "said source" and "said heat treatment".

This rejection is traversed at least for the following reasons.

A antecedent basis has been established for the terms "said source" and "said heat treatment".

Withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. §103

Paragraph 5 of the Office Action indicates a rejection of claims 1-20 under 35 U.S.C. §103 as allegedly being obvious over U.S. Patent No. 5,396,072 to Schiebel et al. (Schiebel) in view of U.S. Patent No. 6,251,701 to McCandless.

This rejection is traversed at least for the following reasons.

Schiebel arguably teaches an X-ray image detector. However, the Office Action *admits* that Schiebel fails to disclose, teach or suggest the details of how the detector layer is formed (Office Action at page 5).

Moreover, doping Cl to the carrier selective layer made of CdTe in Schiebel is merely to provide carrier selectivity by changing the band gap through doping.

In Schiebel, the carrier selective function cannot be exhibited since the band gap disappears when CdTe doped with Cl of the same extent as the carrier selective layer is used for the detecting layer of the invention of Schiebel. For this reason, it is natural to think that doping Cl to the detecting layer is not described in the invention of Schiebel. Therefore, it is rather forceful to refuse the subject invention in which Cl is doped to the detecting layer based only on the disclosure of doping Cl to the carrier selective layer, as disclosed in the invention of Schiebel, and thus the reasons for refusal should be dismissed.

If enhancing the detection sensitivity of the radiation by doping Cl to the detecting layer made of CdTe of the radiation detector can be assumed from each cited document, there is believed to be a motivation for using CdTe doped with Cl for the detecting layer of the invention of Schiebel.

However, such aspect is not suggested in any cited document, and thus there is no motivation for using CdTe doped with Cl for the radiation detector disclosed in the invention of Schiebel.

Moreover, Schiebel fails to disclose, teach or suggest fails to disclose, teach or suggest forming either the CdS film or the CdTe film by vapor deposition or sublimation while using as a source, *a mixture* of a first material including at least one of CdTe (cadmium telluride), ZnTe (zinc telluride) and CdZnTe (cadmium zinc telluride) and a second material including at least one of $CdCl_2$ (cadmium chloride) or $ZnCl_2$ (zinc chloride).

McCandless arguably teaches an all-vapor processing of p-type tellurium-containing II-VI semiconductor and ohmic contacts thereof. Figure 1 of McCandless arguably teaches that a deposition 12 of CdS and *CdTe films* onto a glass substrate occurs (McCandless at column 3, lines 58-59). Figure 1 of McCandless arguably teaches that the film is then subjected to a *$CdCl_2$ vapor heat treatment 16* (McCandless at column 3, lines 60-61).

However, McCandless fails to disclose, teach or suggest forming either the CdS film or the CdTe film by vapor deposition or sublimation while using as a source, *a mixture* of a first material including at least one of CdTe (cadmium telluride), ZnTe (zinc telluride) and CdZnTe (cadmium zinc telluride) and a second material including at least one of $CdCl_2$ (cadmium chloride) or $ZnCl_2$ (zinc chloride).

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Conclusion

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

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Respectfully submitted,

By_____

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